

## C L A I M S

1. Pressing cylinder (1), preferably for use in a refuse compressor for compression of refuse, which in practical use is preferably oriented vertically, and which at its bottom is coupled to a pressing plate (2) and at the top to a top plate (3) fixed in a frame, and which can activate the pressing plate in its upward and downward directions,  
5 c h a r a c t e r i s e d by the fact that the pressing cylinder is composed of several, preferably by three, cylinder sections, namely a first and lowest cylinder section (4), which at its bottom is fixed to the pressing plate (2), a second and intermediate section (5), which can  
10 be displaced telescopically in the longitudinal direction in/on the first cylinder section (4), and a third and upper cylinder section (6), which at the top is attached to the top plate (3) and which can be displaced telescopically in/on the second cylinder section (5), that the third cylinder section (6) at the bottom is embodied with a bottom plate (7) which together with the cylinder section (6)  
15 and the top member (3) delimits a closed hollow space (8) in the cylinder section (6), that between the periphery of the bottom plate (7) and the cylinder barrel of the cylinder section (4) at the bottom at the pressing plate (2) internally in the pressing cylinder is clamped - in the extended position - an approximately cylinder-shaped bendable diaphragm (9), preferably of rubber, whereby  
20 internally in the pressing cylinder an airtight space (10) is created between the bottom plate (7), the pressing plate (2) and the diaphragm (9), and that the bottom plate (7) is embodied with an inlet opening (11) for a compression medium, preferably compressed air, that the compressed air is admitted to the space (10) through a pipe (12) from a three-way valve (13), which in a first  
25 position opens for compressed air from a compressor (14), and in a second position opens the space (10) to the atmosphere, and that between the bottom plate (7) and the pressing plate (2) - preferably internally in the pressing cylinder - there is clamped an extension spring (15), which can contract the cylinder sections (4,5,6) at the end of a working stroke.
- 30 2. Pressing cylinder according to claim 1, c h a r a c t e r i s e d by the fact that the first and the second cylinder sections (4) and (5) in the pressing cylinder at the top are embodied with a short cylinder-shaped segment, respectively (16) and (17), with an inner and outer diameter smaller than those of the cylinder  
35 barrel in the cylinder sections, whereby is created an internally circular

-7-

ring-shaped collar, respectively (18) and (19), which can co-operate with an outwardly directed circumferential edge (20) and (21) at the bottom of respectively the second (5) and the third (6) cylinder sections, when the pressing cylinder is in its extended position.

- 5 3. Pressing cylinder according to claims 1 and 2,  
characterised by the fact  
that the segments (16) and (17) are internally embodied with one or more  
guiding edges (22), for example with a cross section as part of a circle,  
which is oriented in the direction of a carrier in the segment, and that the  
10 external side of the cylinder barrels in the cylinder sections (5) and (6) are  
embodied with grooves (23) which are oriented in the direction of a carrier in  
these sections, and have a cross section so that they can co-operate with the  
guiding edges (22).
4. Pressing cylinder according to claims 1 and 2,  
15 characterised by the fact that  
the diaphragm (9) is attached to the bottom plate (7) in the cylinder section (6)  
by being securely clamped between a circumferential oblique surface (21') on  
the under side of the edge (21) and a clamping ring (24), which can be  
accommodated in a depression (25) in the bottom plate (7), and to the pressing  
20 plate (2) by being securely clamped between an internal oblique surface (26)  
at the lower end of the cylinder barrel on the first cylinder section (4) and a  
clamping plate (27), which is mounted on the upper side of the pressing plate  
(2), and that the diaphragm (9) preferably furthermore is fixed to the lower end of  
the cylinder barrel on the second cylinder section (5) by a clamping ring (28),  
25 which is engaged in a circumferential groove (29) on the internal side of the  
cylinder barrel of the section.
5. Pressing cylinder according to claim 1,  
characterised by the fact that  
the extension spring (15) is embodied as a double spring consisting of two  
30 concentric springs (15, 15') with oppositely directed pitches.
6. Pressing cylinder according to claim 1,  
characterised by the fact that  
the bottom (7) at its middle is drawn up into a raised part (30) of the shape of a  
truncated cone with a plane top surface (31) and an internal hollow space (32)

-8-

which can accommodate the spring (15), when the pressing cylinder is in its compressed state, and that in the bottom of the top side (31) and on the top side of the clamping plate (27) is mounted a clamping member, respectively (33) and (34) for attachment of the two ends of the springs (15, 15').